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(54)	YARN FEEDER FOR TEXTILE MACHINES			
(75)	Inventors:	Alfred Lampprecht, Betzweiler-Walde (DE); Hermann Schmodde, Horb-Dettlingen (DE); Eberhard Leins, Horb (DE)		
(73)	Assignee:	Memminger-IRO GmbH (DE)		
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		125 R

(56)References Cited

U.S. PATENT DOCUMENTS

2.259.202 A	* 10/1941	Cooper 242/366
3,922,887 A	* 12/1975	Mishcon 242/365.6
		Clemens 66/132 R
4,180,215 A	• 12/1979	Nurk 242/365.6
4,271,687 A	• 6/1981	Memminger et al 66/132 T
4,574,597 A	3/1986	Buck et al.
4,645,134 A	* 2/1987	Sarfati 242/365.4

4,687,150 A 4,793,565 A	• 12/1988	Gutschmit Fecker 242/366
4,918,948 A	4/1990	Nurk
5,802,881 A	9/1998	Lin
5,839,685 A	11/1998	
6,015,109 A	* 1/2000	Ohlson et al 242/364.9
6,149,092 A	* 11/2000	Chen 242/366

FOREIGN PATENT DOCUMENTS

DE	3326099	2/1985
DE	3516891 C	10/1986
DE	3711558 C	6/1988
DE	9215924 U	3/1993
DE	4141712 A	6/1993
DE	29616525 U	11/1996
EP	0217373 A	4/1987
EP	0568762 A	11/1993
GB	2174727 A	11/1986

^{*} cited by examiner

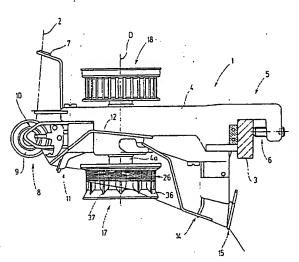
Primary Examiner-Michael R. Mansen

(74) Attorney, Agent, or Firm-Leydig, Voit & Mayer, Ltd.

ABSTRACT

A yarn feeder has a yarn feed wheel, which preferably comprises ceramic or is coated with a corresponding material. The yarn feed wheel, because of the choice of its material or its shaping, has improved long-term operation properties. The geometry and/or the material has low susceptibility to wear. This is attained by means of ceramic surfaces and/or the combination of a conical, continuous yarn inlet surface with adjoining striplike bearing faces in the yarn storage region and a continuous, that is, uninterrupted surface in the yarn payout region; the surfaces are shaped such that the yarn, along its way from the inlet region into the payout region, sweeps over the corresponding surfaces over the entire axial course. The striplike supporting or bearing of the yarn in the yarn storage region is attained by suitable shaping of the yarn feed wheel in the yarn storage region. Openings or slits or the like in the yarn feed wheel are not necessary but may be provided.

17 Claims, 5 Drawing Sheets



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